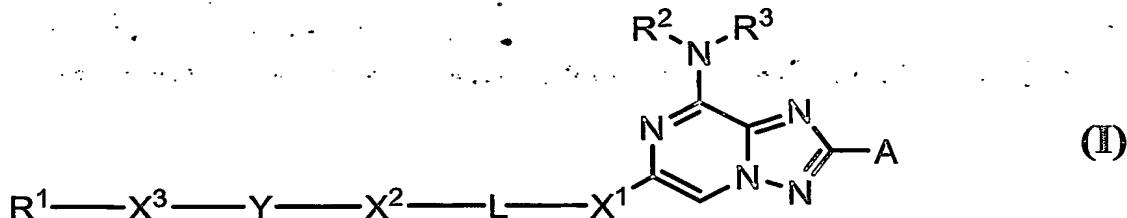


-65-

What is claimed is:

1. A compound of the following formula:



or a pharmaceutically acceptable salt or N-oxide thereof;

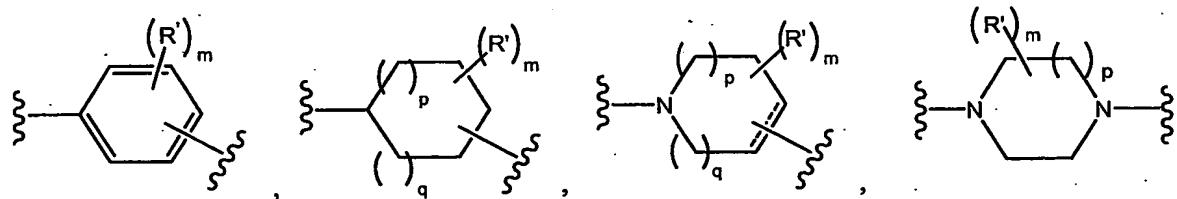
5      wherein

A is aryl or heteroaryl;

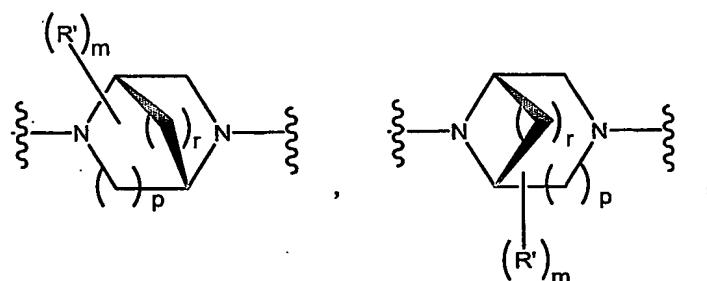
each of R<sup>2</sup> and R<sup>3</sup> is independently hydrogen, alkyl, cycloalkyl, cycloalkenyl, aryl, aralkyl, heterocycloalkyl, heterocycloalkenyl, heteroaryl, or heteroaralkyl;

10      each of X<sup>1</sup>, X<sup>2</sup>, and X<sup>3</sup> is independently a bond, C<sub>1-6</sub> alkylene, C<sub>2-6</sub> alkenylene, or C<sub>2-6</sub> alkynylene; each of said C<sub>1-6</sub> alkylene, C<sub>2-6</sub> alkenylene, and C<sub>2-6</sub> alkynylene being optionally substituted alkyl, alkenyl, alkynyl, alkoxy, acyl, halo, hydroxy, amino, nitro, cyano, guanadino, amidino, carboxy, sulfo, mercapto, alkylsulfanyl, alkylsulfinyl, alkylsulfonyl, aminocarbonyl, alkylcarbonylamino, alkylsulfonylamino, alkoxycarbonyl, alkylcarbonyloxy, urea, thiourea, sulfamoyl, sulfamide, carbamoyl, 15      cycloalkyl, cycloalkyloxy, cycloalkylsulfanyl, cycloalkylalkyl, heterocycloalkyl, heterocycloalkyloxy, heterocycloalkylsulfanyl, heterocyloalkylalkyl, aryl, aryloxy, arylsulfanyl, aroyl, aralkyl, heteroaryl, heteroaryloxy, heteroarylsulfanyl, heteroaroyl, or heteroaralkyl;

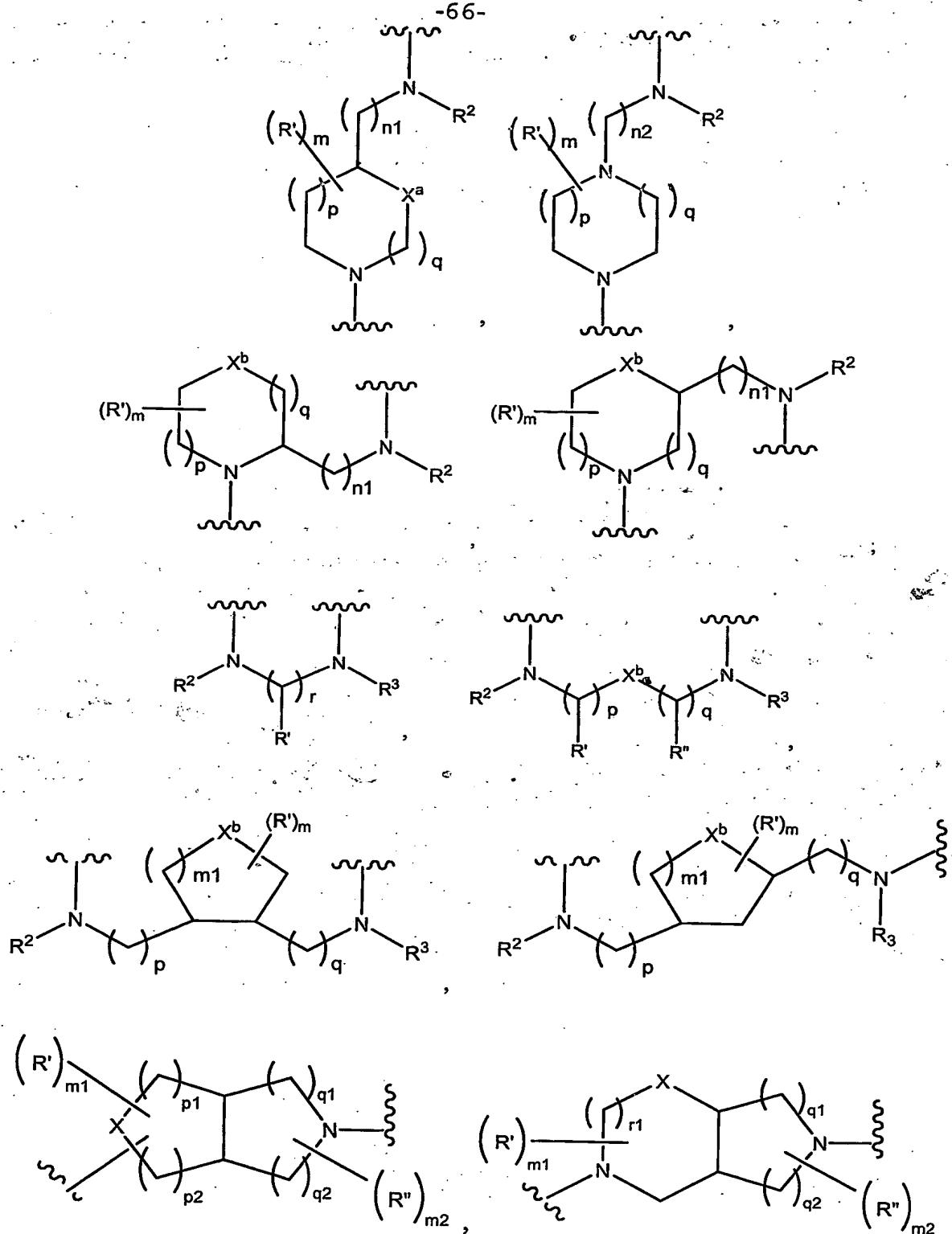
L is a bond or a linker selected from the group consisting of:



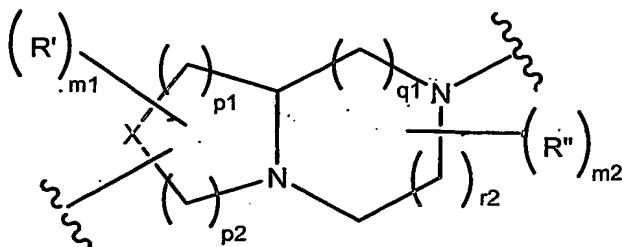
20



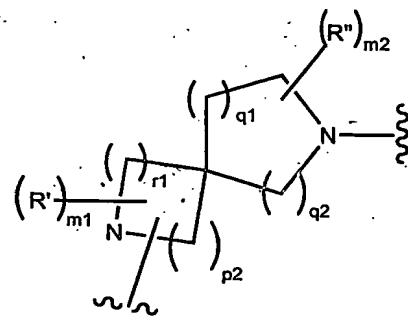
-66-



-67-



, and



wherein:

each of R' and R'', independently, is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, acyl, halo, hydroxy, amino, nitro, oxo, thioxo, cyano, guanadino, amidino, carboxy, sulfo, sulfoxyl, mercapto, alkylsulfanyl, alkylsulfinyl, alkylsulfonyl, aminocarbonyl, alkylcarbonylamino, alkylsulfonylamino, alkoxycarbonyl, alkylcarbonyloxy, urea, thiourea, sulfamoyl, sulfamide, carbamoyl, cycloalkyl, cycloalkyloxy, cycloalkylsulfanyl, heterocycloalkyl, heterocycloalkyloxy, heterocycloalkylsulfanyl, aryl, aryloxy, arylsulfanyl, aroyl, heteroaryl, heteroaryloxy, heteroarylsulfanyl, or heteroaroyl; provided that two adjacent R' groups can join together to form a 4- to 8-membered optionally substituted cyclic moiety;

X<sup>a</sup> is -C(R<sup>2</sup>)(R<sup>3</sup>)-, -S-, -SO-, or -SO<sub>2</sub>-;

X<sup>b</sup> is -C(R<sup>2</sup>)(R<sup>3</sup>)-, -NR<sup>2</sup>-, -O-, -S-, -SO-, or -SO<sub>2</sub>-;

each of p, q, and m, independently, is 0-3;

each of m1 and m2, independently, is 0-2;

each of r and r1, independently, is 1 or 2;

each of p1, p2, q1, and q2, independently, is 0-2;

r2 is 0 or 1;

n1 is 0-6; and

n2 is 2-6;

Y is -NR<sup>a</sup>-, -O-, -S-, -SO-, -SO<sub>2</sub>-, -CO-, -CO<sub>2</sub>-, -O-CO-, -CO-NR<sup>a</sup>-, -NR<sup>a</sup>-CO-, -SO<sub>2</sub>-NR<sup>a</sup>-, -NR<sup>a</sup>-SO<sub>2</sub>-, -NR<sup>a</sup>-CO-NR<sup>b</sup>-, -NR<sup>a</sup>-CO-O-, -O-CO-NR<sup>a</sup>-, or a bond; where each of R<sup>a</sup> and R<sup>b</sup> is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, cycloalkylalkyl, heterocycloalkylalkyl, cycloalkenyl, heterocycloalkenyl, cycloalkenylalkyl, heterocycloalkenylalkyl, aryl, heteroaryl, aralkyl, or heteroaralkyl; and

R<sup>1</sup> is hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, or heterocycl; each of said alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, and

-68-

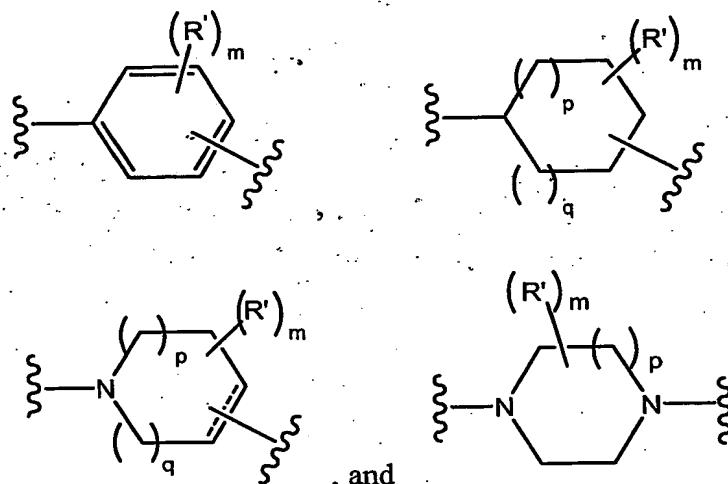
heterocyclyl being optionally substituted alkyl, alkenyl, alkynyl, alkoxy, formyl, acyl, halo, hydroxy, amino, nitro, cyano, guanadino, amidino, oxo, carboxy, sulfo, mercapto, alkylsulfanyl, alkylsulfinyl, alkylsulfonyl, aminocarbonyl, alkylcarbonylamino, alkylsulfonylamino, alkoxycarbonyl, alkylcarbonyloxy, urea, thiourea, sulfamoyl, sulfamide, carbamoyl, cycloalkyl, cycloalkyloxy, cycloalkylsulfanyl, cycloalkylalkyl, heterocycloalkyl, heterocycloalkyloxy, heterocycloalkylsulfanyl, heterocycloalkylalkyl, aryl, aryloxy, arylsulfanyl, aroyl, aralkyl, heteroaryl, heteroaryloxy, heteroarylsulfanyl, heteroaroyl, or heteroaralkyl;

provided that when each of  $X^1$ , L,  $X^2$ , Y, and  $X^3$  is a bond,  $R^1$  is not hydrogen.

10

2. The compound of claim 1, wherein  $X^1$  is alkynylene.

3. The compound of claim 2, wherein L is a bond or a linker selected from the group consisting of:



15

4. The compound of claim 3, wherein each of  $X^2$  and  $X^3$  is independently a bond or alkylene.

20

5. The compound of claim 4, wherein Y is -NR<sup>a</sup>-, -O-, -S-, -CO-O-, -O-CO-, -CO-NR<sup>a</sup>-, -NR<sup>a</sup>-CO-, or a bond.

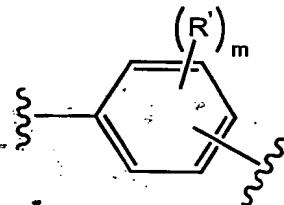
6. The compound of claim 5, wherein  $R^1$  is alkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl.

-69-

7. The compound of claim 1, wherein  $X^1$  is alkynylene; L is a bond; each of  $X^2$  and  $X^3$  is independently a bond or alkylene; Y is a bond or  $-NR^a-$  where  $R^a$  is hydrogen or alkyl; and  $R^1$  is alkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl, each of which being optionally substituted with halo, hydroxy, alkyl, aralkyl, or heteroaralkyl; A is furyl, thienyl, or pyridyl; and each of  $R^2$  and  $R^3$  is independently a bond or  $C_{1-4}$  alkyl.

8. The compound of claim 1, wherein  $X^1$  is a bond or alkylene.

10



9. The compound of claim 8, wherein L is a bond or

10. The compound of claim 9, wherein each of  $X^2$  and  $X^3$  is independently a bond,  $C_{1-6}$  alkylene, or  $C_{2-6}$  alkenylene.

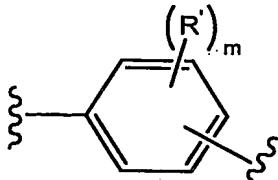
15

11. The compound of claim 10, wherein Y is a bond,  $-CO-$ ,  $-CO-O-$ ,  $-O-CO-$ ,  $-CO-NR^a-$ , or  $-NR^a-CO-$ .

20

12. The compound of claim 11, wherein  $R^1$  is hydrogen, alkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl, each of which being optionally substituted with alkyl, halo, hydroxy, alkoxycarbonyl, aminocarbonyl, aryl, aralkyl, heteroaryl, or heteroaralkyl.

13. The compound of claim 1, wherein each of  $X^1$  and  $X^2$  is a bond; L is a bond or



25

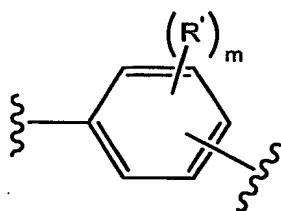
; Y is  $-CO-$ ,  $-CO-O-$ ,  $-O-CO-$ ,  $-CO-NR^a-$ , or  $-NR^a-CO-$  where  $R^a$  is hydrogen or alkyl;  $X^3$  is  $C_{1-6}$  alkylene;  $R^1$  is hydrogen, or alkyl,

-70-

cycloalkyl, heterocycloalkyl, aryl, or heteroaryl, each of said alkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl being optionally substituted with alkyl, halo, hydroxy, alkoxycarbonyl, aminocarbonyl, aryl, aralkyl, heteroaryl, or heteroaralkyl; A is furyl, thienyl, or pyridyl; and each of R<sup>2</sup> and R<sup>3</sup> is independently a bond or C<sub>1-4</sub> alkyl.

5

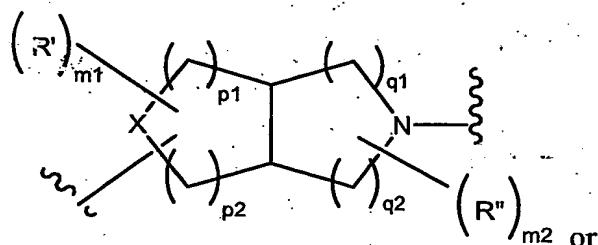
14. The compound of claim 1, wherein X<sup>1</sup> is a bond; L is a bond or



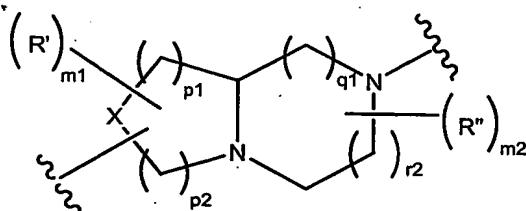
; X<sup>2</sup> is a bond, C<sub>1-6</sub> alkylene, or C<sub>2-6</sub> alkenylene; Y is a bond, -CO-, -O-, -CO-NR<sup>a</sup>-, or -NR<sup>a</sup>-CO- where R<sup>a</sup> is hydrogen or alkyl; X<sup>3</sup> is a bond or C<sub>1-6</sub> alkylene; R<sup>1</sup> is aryl or heterocycloalkyl, each of which being optionally substituted with alkyl, halo, alkylsulfanyl, or amino; A is furyl, thienyl, or pyridyl; and each of R<sup>2</sup> and R<sup>3</sup> is independently a bond or C<sub>1-4</sub> alkyl.

10

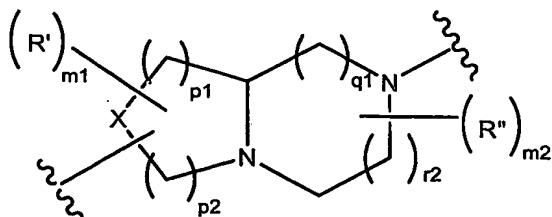
15. The compound of claim 1, wherein L is



15



16. The compound of claim 15, wherein L is



-71-

17. The compound of claim 16, wherein X is -CH<sub>2</sub>-, p1 is 1, p2 is 1 or 2, q1 is 1, r2 is 1 or 2, each of m1 and m2 is independently 0 or 1, and each of R' and R'' is independently hydrogen or alkyl.

5

18. The compound of claim 17, wherein R<sup>1</sup> is cycloalkyl, cycloalkylalkyl, aryl, aralkyl, heterocyclyl, or heterocyclylalkyl.

19. The compound of claim 1, said compound being

10 2-Furan-2-yl-6-(5-phenyl-pent-1-ynyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
2-Furan-2-yl-6-(4-trifluoromethyl-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-benzoic acid;  
[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-piperidin-1-yl-methanone;

15 8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazine-6-carboxylic acid methyl ester;  
8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazine-6-carboxylic acid;  
(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-carbamic acid tert-butyl ester;

20 (8-Diacetylamino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-carbamic acid tert-butyl ester;  
8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazine-6-carboxylic acid diethylamide;  
4-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-prop-2-ynyl]-

25 piperazine-1-carboxylic acid tert-butyl ester;  
4-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-propyl]-piperazine-1-carboxylic acid tert-butyl ester;  
2-Furan-2-yl-6-methanesulfonyl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
2-Furan-2-yl-6-piperazin-1-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

30 2-Furan-2-yl-6-[4-(2,4,6-trifluoro-benzyl)-piperazin-1-yl]-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
6-[4-(5-Chloro-1-methyl-3-trifluoromethyl-1H-pyrazol-4-ylmethyl)-piperazin-1-yl]-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

-72-

5-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1H-pyridin-2-one;  
N-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-prop-2-ynyl]-N-methyl-isonicotinamide;

Thiophene-3-sulfonic acid [3-(8-amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-prop-2-ynyl]-amide;

2-Furan-2-yl-6-(3-phenoxy-prop-1-ynyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

2-Furan-2-yl-6-(3-phenyl-3-phenylamino-prop-1-ynyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yethynyl)-3-hydroxy-piperidine-1-carboxylic acid tert-butyl ester;

6-{3-[(6-Chloro-2-fluoro-3-methyl-benzyl)-methyl-amino]-prop-1-ynyl}-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

6-(3-Amino-prop-1-ynyl)-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

{3-[Bis-(2,4,6-trifluoro-benzyl)-amino]-prop-1-ynyl}-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3,6-dihydro-2H-pyridine-1-carboxylic acid tert-butyl ester;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-piperidine-1-carboxylic acid tert-butyl ester;

2-Furan-2-yl-6-[1-(2,4,6-trifluoro-benzylamino)-cyclohexylethynyl]-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1-(4-amino-phenyl)-2-methyl-but-3-yn-2-ol;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yethynyl)-1-(2,4,6-trifluoro-benzyl)-piperidin-4-ol;

S-2-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yethynyl)-pyrrolidine-1-carboxylic acid tert-butyl ester;

R-2-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yethynyl)-pyrrolidine-1-carboxylic acid tert-butyl ester;

S-trans-2-[2-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-vinyl]-pyrrolidine-1-carboxylic acid tert-butyl ester;

S-cis-2-[2-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-vinyl]-pyrrolidine-1-carboxylic acid tert-butyl ester;

-73-

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl)-cyclobutanol;  
1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl)-cyclopentanol;  
1-[8-Amino-2-(3-fluoro-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl]-  
cyclopentanol;

5 1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl)-cyclohexanol;  
4-[8-Amino-2-(3-fluoro-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-6-yl]-2-phenyl-but-3-  
yn-2-ol;  
[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-prop-2-ynyl]-  
carbamic acid tert-butyl ester;

10 2-Furan-2-yl-6-(3-methylamino-prop-1-ynyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-  
ylamine;  
2-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl)-indan-2-ol;  
1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl)-2,2,6-trimethyl  
cyclohexanol;

15 1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl)-2-benzyl-  
cyclohexanol;  
3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-prop-2-yn-1-ol;  
6-(3-Cyclohexyl-prop-1-ynyl)-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
6-(3-Cyclopentyl-prop-1-ynyl)-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-  
20 ylamine;  
6-[3-(Benzyl-methyl-amino)-prop-1-ynyl]-2-furan-2-yl-[1,2,4]triazolo[1,5-  
a]pyrazin-8-ylamine;  
6-[3-(6-Chloro-2-fluoro-3-methyl-benzylamino)-prop-1-ynyl]-2-furan-2-yl-  
[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

25 N-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-prop-2-ynyl]-2,4,6-  
trifluoro-benzamide;  
N-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-prop-2-ynyl]-2,4-  
difluoro-benzamide;  
N-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-prop-2-ynyl]-2-  
30 pyridin-4-yl-acetamide;  
3,5-Dimethyl-isoxazole-4-carboxylic acid [3-(8-amino-2-furan-2-yl-  
[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-prop-2-ynyl]-amide;

-74-

5-Methyl-isoxazole-3-carboxylic acid [3-(8-amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-prop-2-ynyl]-amide;

2,5-Dimethyl-2H-pyrazole-3-carboxylic acid [3-(8-amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-prop-2-ynyl]-amide;

5 2,4-Dimethyl-thiazole-5-carboxylic acid [3-(8-amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-prop-2-ynyl]-amide;

4-Methyl-2-pyrazin-2-yl-thiazole-5-carboxylic acid [3-(8-amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-prop-2-ynyl]-amide;

10 4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl)-4-hydroxy-piperidine-1-carboxylic acid tert-butyl ester;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl)-1-isopropyl-piperidin-4-ol;

• 6-(1-Amino-cyclohexylethynyl)-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

15 2-Furan-2-yl-6-(4-trifluoromethyl-phenylethynyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

2-Furan-2-yl-6-(4-pentyl-phenylethynyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

6-(2,4-Difluoro-phenylethynyl)-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

20 2-Furan-2-yl-6-pyridin-2-ylethynyl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1-(3-trifluoromethyl-phenoxy)-but-3-yn-2-ol;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-methyl-1-phenoxy-but-3-yn-2-ol;

25 1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-5-phenyl-pent-1-yn-3-ol;

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3-methyl-5-phenyl-pent-1-yn-3-ol;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1-furan-2-yl-2-methyl-but-3-yn-2-ol;

30 4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1-(3-fluoro-phenyl)-2-methyl-but-3-yn-2-ol;

-75-

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-methyl-1-(4-nitro-phenyl)-but-3-yn-2-ol;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-methyl-1-pyridin-4-yl-but-3-yn-2-ol;

5 1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3-methyl-non-1-yn-3-ol;

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3-(2-fluoro-3-trifluoromethyl-phenyl)-pent-1-yn-3-ol;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-(4-dimethylamino-phenyl)-1,1,1-trifluoro-but-3-yn-2-ol;

10 6-(3-tert-Butoxy-but-1-ynyl)-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

2-Furan-2-yl-6-[3-(pyridin-3-yloxy)-prop-1-ynyl]-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

15 2-Furan-2-yl-6-[3-(1-methyl-5-trifluoromethyl-1H-pyrazol-3-yloxy)-prop-1-ynyl]-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

6-{3-[4-(3,5-Dichloro-pyridin-4-ylmethyl)-phenoxy]-prop-1-ynyl}-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

2-Furan-2-yl-6-[3-(4-imidazol-1-yl-phenoxy)-prop-1-ynyl]-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

20 6-[3-(3-Dimethylamino-phenoxy)-prop-1-ynyl]-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

6-[3-(3-Chloro-4-fluoro-phenoxy)-prop-1-ynyl]-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

N-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-prop-2-ynyl]-isonicotinamide;

25 6-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-hex-5-ynenitrile;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-phenyl-but-3-yn-2-ol;

30 4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-pyridin-4-yl-but-3-yn-2-ol;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-(3-trifluoromethoxy-phenyl)-but-3-yn-2-ol;

-76-

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-(2-fluoro-3-trifluoromethyl-phenyl)-but-3-yn-2-ol;

4-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1-hydroxy-1-methyl-prop-2-ynyl]-phenol;

5 4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-naphthalen-2-yl-but-3-yn-2-ol;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-benzo[b]thiophen-3-yl-but-3-yn-2-ol;

10 4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-biphenyl-4-yl-but-3-yn-2-ol;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-(4-imidazol-1-yl-phenyl)-but-3-yn-2-ol;

15 2-[6-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-hex-5-ynyl]-isoindole-1,3-dione;

2-Furan-2-yl-6-[3-(tetrahydro-pyran-2-yloxy)-prop-1-ynyl]-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

6-{3-[4-(2,4-Difluoro-phenyl)-piperazin-1-yl]-prop-1-ynyl}-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

20 2-Furan-2-yl-6-{3-[4-(2,4,6-trifluoro-phenyl)-piperazin-1-yl]-prop-1-ynyl}-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

2-Furan-2-yl-6-(3-piperazin-1-yl-propyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

6-{3-[4-(2,4-Difluoro-phenyl)-piperazin-1-yl]-propyl}-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

25 1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3-methyl-pent-1-yn-3-ol;

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3-isopropyl-4-methyl-pent-1-yn-3-ol;

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3-ethyl-pent-1-yn-3-ol;

30 1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3,6-dimethyl-hept-1-yn-3-ol;

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3,5-dimethyl-hex-1-yn-3-ol;

-77-

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3,4,4-trimethyl-pent-1-yn-3-ol;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1,1,1-trifluoro-2-phenyl-but-3-yn-2-ol;

5 3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1,1-diphenyl-prop-2-yn-1-ol;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1-phenyl-prop-2-yn-1-ol;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1-[4-(4-methyl-10 piperazin-1-yl)-phenyl]-prop-2-yn-1-ol;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1-benzo[1,3]dioxol-4-yl-prop-2-yn-1-ol;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1-benzo[b]thiophen-2-yl-prop-2-yn-1-ol;

15 2-Furan-2-yl-6-[1-(5-methyl-isoxazol-3-ylmethyl)-1,2,3,6-tetrahydro-pyridin-4-yl]-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

6-[1-(5-Chloro-1-methyl-3-trifluoromethyl-1H-pyrazol-4-ylmethyl)-1,2,3,6-tetrahydro-pyridin-4-yl]-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

6-[1-(5-Chloro-1-methyl-3-trifluoromethyl-1H-pyrazol-4-ylmethyl)-piperidin-4-yl]-20 2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

2-Furan-2-yl-6-[1-(2,4,6-trifluoro-benzyl)-1,2,3,6-tetrahydro-pyridin-4-yl]-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

2-Furan-2-yl-6-[1-(2,4,6-trifluoro-benzyl)-piperidin-4-yl]-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

25 3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yethynyl)-1-(2,4,6-trifluoro-benzyl)-piperidin-3-ol;

6-[1-(6-Chloro-2-fluoro-3-methyl-benzyl)-1,2,3,6-tetrahydro-pyridin-4-yl]-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

2-Furan-2-yl-6-(1-quinolin-4-ylmethyl-1,2,3,6-tetrahydro-pyridin-4-yl)-30 [1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

S-2-Furan-2-yl-6-[1-(2,4,6-trifluoro-benzyl)-pyrrolidin-2-yethynyl]-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

-78-

*R*-2-Furan-2-yl-6-[1-(2,4,6-trifluoro-benzyl)-pyrrolidin-2-ylethynyl]-  
[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

*S*-6-[1-(5-Chloro-furan-2-ylmethyl)-pyrrolidin-2-ylethynyl]-2-furan-2-yl-  
[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

5      *R*-6-[1-(5-Chloro-furan-2-ylmethyl)-pyrrolidin-2-ylethynyl]-2-furan-2-yl-  
[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

*S*-2-Furan-2-yl-6-(1-quinolin-3-ylmethyl-pyrrolidin-2-ylethynyl)-  
[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

*R*-2-Furan-2-yl-6-(1-quinolin-3-ylmethyl-pyrrolidin-2-ylethynyl)-  
10     [1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

*S*-6-[1-(4-Bromo-1-methyl-1H-pyrazol-3-ylmethyl)-pyrrolidin-2-ylethynyl]-2-  
furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

*R*-6-[1-(4-Bromo-1-methyl-1H-pyrazol-3-ylmethyl)-pyrrolidin-2-ylethynyl]-2-  
furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

15     *S*-6-[1-(3,5-Dimethyl-isoxazol-4-ylmethyl)-pyrrolidin-2-ylethynyl]-2-furan-2-yl-  
[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

*R*-6-[1-(3,5-Dimethyl-isoxazol-4-ylmethyl)-pyrrolidin-2-ylethynyl]-2-furan-2-yl-  
[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

*S*-6-[1-(5-Chloro-1-methyl-3-trifluoromethyl-1H-pyrazol-4-ylmethyl)-pyrrolidin-2-  
20     ylethynyl]-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

*S*-2-Furan-2-yl-6-[1-(5-methyl-isoxazol-3-ylmethyl)-pyrrolidin-2-ylethynyl]-  
[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

*S*-2-[2-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-ethyl]-  
pyrrolidine-1-carboxylic acid tert-butyl ester;

25     *R*-2-[2-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-ethyl]-  
pyrrolidine-1-carboxylic acid tert-butyl ester;

*R*-2-Furan-2-yl-6-{2-[1-(2,4,6-trifluoro-benzyl)-pyrrolidin-2-yl]-ethyl}-  
[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

30     *R*-6-{2-[1-(4-Bromo-1-methyl-1H-pyrazol-3-ylmethyl)-pyrrolidin-2-yl]-ethyl}-2-  
furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

*R*-6-{2-[1-(5-Chloro-furan-2-ylmethyl)-pyrrolidin-2-yl]-ethyl}-2-furan-2-yl-  
[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

-79-

S-6-{2-[1-(5-Chloro-furan-2-ylmethyl)-pyrrolidin-2-yl]-ethyl}-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

R-6-{2-[1-(3,5-Dimethyl-isoxazol-4-ylmethyl)-pyrrolidin-2-yl]-ethyl}-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

5 2-Furan-2-yl-6-hex-1-enyl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-benzoic acid ethyl ester;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-benzamide;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-N-isopropyl-10 benzamide;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-N-butyl-benzamide;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-N-[2-(4-hydroxy-phenyl)-ethyl]-benzamide;

15 3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-N,N-dimethyl-benzamide;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-N,N-diethyl-benzamide;

[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-pyrrolidin-1-yl-methanone;

20 [3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-morpholin-4-yl-methanone;

1-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-benzoyl]-piperidine-3-carboxylic acid ethyl ester;

25 [3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-(4-benzyl-piperazin-1-yl)-methanone;

[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-(4-pyridin-4-yl-piperazin-1-yl)-methanone;

[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-(4-pyridin-2-yl-piperazin-1-yl)-methanone;

30 [4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-(4-pyridin-2-yl-piperazin-1-yl)-methanone;

[4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-(4-pyridin-4-yl-piperazin-1-yl)-methanone;

-80-

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-N-isopropyl-benzamide;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-N-[2-(4-hydroxy-phenyl)-ethyl]-benzamide;

5 4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-N-(3-imidazol-1-yl-propyl)-benzamide;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-N-butyl-benzamide;

10 1-[4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-benzoyl]-piperidine-3-carboxylic acid ethyl ester;

[4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-morpholin-4-yl-methanone;

[4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-pyrrolidin-1-yl-methanone;

[4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-piperidin-1-yl-methanone;

15 2-Furan-2-yl-6-pyridin-3-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

2-Furan-2-yl-6-m-tolyl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

6-(3,4-Dichloro-phenyl)-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

6-(3,5-Bis-trifluoromethyl-phenyl)-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

20 2-Furan-2-yl-6-(4-methylsulfanyl-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

6-(3-Amino-phenyl)-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

2,6-Di-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

6-(4-Dimethylamino-phenyl)-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

25 2-Furan-2-yl-6-naphthalen-1-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-methanol;

3-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-acrylic acid;

6-(3-Benzyl-phenyl)-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

30 2-Furan-2-yl-6-(2,4,6-trimethyl-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-benzaldehyde;

3-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-acrylic acid ethyl ester;

-81-

[4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-methanol;  
2-Furan-2-yl-6-(3-{{(pyridin-2-ylmethyl)-amino}-methyl}-phenyl)-  
[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-benzaldehyde;  
5 2-Furan-2-yl-6-(4-{{(pyridin-2-ylmethyl)-amino}-methyl}-phenyl)-  
[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
2-Furan-2-yl-6-quinolin-8-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
6-(2-Fluoro-biphenyl-4-yl)-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
6-(3-Aminomethyl-phenyl)-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
10 2-Furan-2-yl-6-furan-3-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-benzonitrile;  
2-Furan-2-yl-6-(1H-indol-6-yl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
6-Benzofuran-2-yl-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
2-Furan-2-yl-6-(3-isopropyl-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
15 6-(2,4-Dimethoxy-pyrimidin-5-yl)-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-  
ylamine;  
2-Furan-2-yl-6-(4-phenoxy-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
6-Dibenzofuran-4-yl-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-benzonitrile;  
20 6-(4-Amino-phenyl)-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
2-Furan-2-yl-6-phenoxathiin-4-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-benzoic acid;  
N-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-  
methanesulfonamide;  
25 2-Furan-2-yl-6-(3-methanesulfonyl-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-  
ylamine;  
6-Benzo[1,3]dioxol-5-yl-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
2-Furan-2-yl-6-(6-methoxy-pyridin-3-yl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
2-Furan-2-yl-6-(3-methoxy-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
30 N-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-acetamide;  
1-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-ethanone;  
6-(3,5-Dimethyl-isoxazol-4-yl)-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-  
ylamine;

-82-

2-Furan-2-yl-6-(3-trifluoromethyl-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
2-Furan-2-yl-6-pyrimidin-5-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
2-Furan-2-yl-6-(3-nitro-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
6-(3-Dimethylamino-phenyl)-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
5 4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-benzoic acid ethyl ester;  
4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-benzoic acid methyl ester;  
2-Furan-2-yl-6-(4-trifluoromethoxy-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
10 2-Furan-2-yl-6-(3-trifluoromethoxy-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
2-Furan-2-yl-6-(4-nitro-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
2-Furan-2-yl-6-(4-methanesulfonyl-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;  
15 3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenol;  
4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenol;  
4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-methoxy-phenol;  
8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazine-6-carboxylic acid butylamide;  
20 8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazine-6-carboxylic acid [2-(4-hydroxy-phenyl)-ethyl]-amide;  
8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazine-6-carboxylic acid (3-phenyl-propyl)-amide;  
8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazine-6-carboxylic acid benzylamide;  
25 8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazine-6-carboxylic acid benzyl-methyl-amide;  
(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-pyrrolidin-1-yl-methanone;  
30 (8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-piperidin-1-yl-methanone;  
(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-morpholin-4-yl-methanone;

-83-

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazine-6-carbonyl)-piperidine-3-carboxylic acid ethyl ester;

(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-(4-benzyl-piperazin-1-yl)-methanone;

5 (8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-(4-pyridin-4-yl-piperazin-1-yl)-methanone; or

(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-(4-pyridin-2-yl-piperazin-1-yl)-methanone.

10 20. The compound of claim 1, said compound being

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl)-cyclobutanol;

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl)-cyclopentanol;

1-[8-Amino-2-(3-fluoro-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl]-cyclopentanol;

15 1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl)-cyclohexanol;

4-[8-Amino-2-(3-fluoro-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-6-yl]-2-phenyl-but-3-yn-2-ol;

2-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl)-indan-2-ol;

20 1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl)-2,2,6-trimethyl-cyclohexanol;

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3-methyl-pent-1-yn-3-ol;

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3-isopropyl-4-methyl-pent-1-yn-3-ol;

25 1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3-ethyl-pent-1-yn-3-ol;

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3,6-dimethyl-hept-1-yn-3-ol;

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3,5-dimethyl-hex-1-yn-3-ol;

30 1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3,4,4-trimethyl-pent-1-yn-3-ol;

6-(3-Cyclopentyl-prop-1-ynyl)-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

-84-

6-[3-(Benzyl-méthyl-amino)-prop-1-ynyl]-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1-(3-trifluoromethyl-phenoxy)-but-3-yn-2-ol;

5 4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-methyl-1-phenoxy-but-3-yn-2-ol;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1-(4-amino-phenyl)-2-methyl-but-3-yn-2-ol;

10 4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1-furan-2-yl-2-methyl-but-3-yn-2-ol;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1-(3-fluoro-phenyl)-2-methyl-but-3-yn-2-ol;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-methyl-1-(4-nitro-phenyl)-but-3-yn-2-ol;

15 4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-methyl-1-pyridin-4-yl-but-3-yn-2-ol;

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3-methyl-non-1-yn-3-ol;

6-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-hex-5-ynenitrile;

20 4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-phenyl-but-3-yn-2-ol;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-pyridin-4-yl-but-3-yn-2-ol;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-(3-trifluoromethoxy-phenyl)-but-3-yn-2-ol;

25 4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-(2-fluoro-3-trifluoromethyl-phenyl)-but-3-yn-2-ol;

4-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1-hydroxy-1-methyl-prop-2-ynyl]-phenol;

30 4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-naphthalen-2-yl-but-3-yn-2-ol;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-benzo[b]thiophen-3-yl-but-3-yn-2-ol;

-85-

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-biphenyl-4-yl-but-3-yn-2-ol;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-(4-imidazol-1-yl-phenyl)-but-3-yn-2-ol;

5 4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1,1,1-trifluoro-2-phenyl-but-3-yn-2-ol;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1,1-diphenyl-prop-2-yn-1-ol;

10 3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1-phenyl-prop-2-yn-1-ol;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1-[4-(4-methyl-piperazin-1-yl)-phenyl]-prop-2-yn-1-ol;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1-benzo[1,3]dioxol-4-yl-prop-2-yn-1-ol;

15 3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-1-benzo[b]thiophen-2-yl-prop-2-yn-1-ol;

S-2-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl)-pyrrolidine-1-carboxylic acid tert-butyl ester;

R-2-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl)-pyrrolidine-1-carboxylic acid tert-butyl ester;

20 S-2-Furan-2-yl-6-[1-(2,4,6-trifluoro-benzyl)-pyrrolidin-2-ylethynyl]-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

R-2-Furan-2-yl-6-[1-(2,4,6-trifluoro-benzyl)-pyrrolidin-2-ylethynyl]-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

25 S-6-[1-(5-Chloro-furan-2-ylmethyl)-pyrrolidin-2-ylethynyl]-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

R-6-[1-(5-Chloro-furan-2-ylmethyl)-pyrrolidin-2-ylethynyl]-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

S-2-Furan-2-yl-6-(1-quinolin-3-ylmethyl-pyrrolidin-2-ylethynyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

30 R-2-Furan-2-yl-6-(1-quinolin-3-ylmethyl-pyrrolidin-2-ylethynyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

-86-

S-6-[1-(4-Bromo-1-methyl-1H-pyrazol-3-ylmethyl)-pyrrolidin-2-ylethynyl]-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

R-6-[1-(4-Bromo-1-methyl-1H-pyrazol-3-ylmethyl)-pyrrolidin-2-ylethynyl]-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

5 S-6-[1-(3,5-Dimethyl-isoxazol-4-ylmethyl)-pyrrolidin-2-ylethynyl]-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

R-6-[1-(3,5-Dimethyl-isoxazol-4-ylmethyl)-pyrrolidin-2-ylethynyl]-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

10 S-6-[1-(5-Chloro-1-methyl-3-trifluoromethyl-1H-pyrazol-4-ylmethyl)-pyrrolidin-2-ylethynyl]-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

S-2-Furan-2-yl-6-[1-(5-methyl-isoxazol-3-ylmethyl)-pyrrolidin-2-ylethynyl]-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

15 8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazine-6-carboxylic acid butylamide;

8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazine-6-carboxylic acid [2-(4-hydroxy-phenyl)-ethyl]-amide;

8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazine-6-carboxylic acid (3-phenyl-propyl)-amide;

8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazine-6-carboxylic acid benzylamide;

20 8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazine-6-carboxylic acid benzyl-methyl-amide;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-benzamide;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-N-isopropyl-benzamide

25 3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-N-butyl-benzamide;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-N-[2-(4-hydroxy-phenyl)-ethyl]-benzamide;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-N,N-dimethyl-benzamide;

30 3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-N,N-diethyl-benzamide;

[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-pyrrolidin-1-yl-methanone;

-87-

[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-piperidin-1-yl-methanone;

[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-morpholin-4-yl-methanone;

5 1-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-benzoyl]-piperidine-3-carboxylic acid ethyl ester;

[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-(4-benzyl-piperazin-1-yl)-methanone

[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-(4-pyridin-4-yl-piperazin-1-yl)-methanone;

10 [3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-(4-pyridin-2-yl-piperazin-1-yl)-methanone;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-N-[2-(4-hydroxy-phenyl)-ethyl]-benzamide;

15 2-Furan-2-yl-6-(3-methanesulfonyl-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

6-Benzo[1,3]dioxol-5-yl-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-benzoic acid ethyl ester;

20 3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenol;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-piperazine-1-carboxylic acid tert-butyl ester;

2-Furan-2-yl-6-piperazin-1-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

6-[4-(5-Chloro-1-methyl-3-trifluoromethyl-1H-pyrazol-4-ylmethyl)-piperazin-1-yl]-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

25 2-Furan-2-yl-6-[4-(2,4,6-trifluoro-benzyl)-piperazin-1-yl]-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

2-Furan-2-yl-6-(3-piperazin-1-yl-propyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

4-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-propyl]-piperazine-1-carboxylic acid tert-butyl ester;

30 6-{3-[4-(2,4-Difluoro-phenyl)-piperazin-1-yl]-propyl}-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine; or

2-Furan-2-yl-6-(3-piperazin-1-yl-propyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine.

21. The compound of claim 1, said compound being

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl)-cyclopentanol;

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl)-cyclohexanol;

5 1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-ylethynyl)-2,2,6-trimethyl-cyclohexanol;

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3-methyl-pent-1-yn-3-ol;

10 1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3-isopropyl-4-methyl-pent-1-yn-3-ol;

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3,6-dimethyl-hept-1-yn-3-ol;

15 1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3,5-dimethyl-hex-1-yn-3-ol;

1-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-3,4,4-trimethyl-pent-1-yn-3-ol;

20 4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-methyl-1-pyridin-4-yl-but-3-yn-2-ol;

6-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-hex-5-yenenitrile;

25 4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-phenyl-but-3-yn-2-ol;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-2-pyridin-4-yl-but-3-yn-2-ol;

S-6-[1-(5-Chloro-furan-2-ylmethyl)-pyrrolidin-2-ylethynyl]-2-furan-2-yl-

25 [1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

R-6-[1-(5-Chloro-furan-2-ylmethyl)-pyrrolidin-2-ylethynyl]-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

S-6-[1-(3,5-Dimethyl-isoxazol-4-ylmethyl)-pyrrolidin-2-ylethynyl]-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

30 S-2-Furan-2-yl-6-[1-(5-methyl-isoxazol-3-ylmethyl)-pyrrolidin-2-ylethynyl]-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazine-6-carboxylic acid butylamide;

-89-

8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazine-6-carboxylic acid [2-(4-hydroxy-phenyl)-ethyl]-amide;

8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazine-6-carboxylic acid (3-phenyl-propyl)-amide;

5 3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-N-[2-(4-hydroxy-phenyl)-ethyl]-benzamide;

3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-N,N-diethyl-benzamide;

10 [3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-pyrrolidin-1-yl-methanone;

[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-phenyl]-piperidin-1-yl-methanone;

15 1-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-benzoyl]-piperidine-3-carboxylic acid ethyl ester;

2-Furan-2-yl-6-(3-methanesulfonyl-phenyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

4-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-piperazine-1-carboxylic acid tert-butyl ester;

20 2-Furan-2-yl-6-piperazin-1-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

6-[4-(5-Chloro-1-methyl-3-trifluoromethyl-1H-pyrazol-4-ylmethyl)-piperazin-1-yl]-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

2-Furan-2-yl-6-[4-(2,4,6-trifluoro-benzyl)-piperazin-1-yl]-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

25 2-Furan-2-yl-6-(3-piperazin-1-yl-propyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine;

4-[3-(8-Amino-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-6-yl)-propyl]-piperazine-1-carboxylic acid tert-butyl ester;

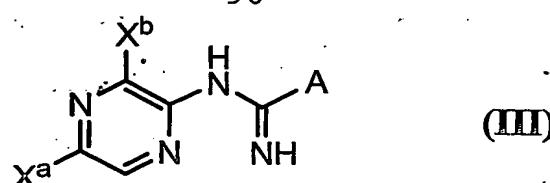
6-{3-[4-(2,4-Difluoro-phenyl)-piperazin-1-yl]-propyl}-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine; or

2-Furan-2-yl-6-(3-piperazin-1-yl-propyl)-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine.

30

22. A compound of the following formula:

-90-



or a pharmaceutically acceptable salt or N-oxide thereof;  
 wherein

A is aryl or heteroaryl; and

5 each of X<sup>a</sup> and X<sup>b</sup> is independently chloro, bromo, or iodo.

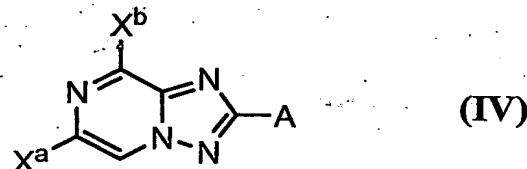
23. The compound of claim 22, wherein A is phenyl, pyrazine, furan, thiophene, indole, thiazole, or pyrrole.

10 24. The compound of claim 23, wherein each of X<sup>a</sup> and X<sup>b</sup> is bromo.

25. The compound of claim 24, said compound being N-(3,5-dibromo-pyrazin-2-yl)-furan-2-carboxamidine or N-(3,5-dibromo-pyrazin-2-yl)-thiophene-2-carboxamidine.

15

26. A compound of the following formula:



or a pharmaceutically acceptable salt or N-oxide thereof;  
 wherein

20 A is aryl or heteroaryl; and

each of X<sup>a</sup> and X<sup>b</sup> is independently chloro, bromo, or iodo.

27. The compound of claim 26, wherein A is phenyl, pyrazine, furan, thiophene, indole, thiazole, or pyrrole.

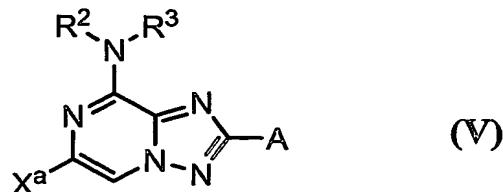
25

28. The compound of claim 27, wherein each of X<sup>a</sup> and X<sup>b</sup> is bromo.

-91-

29. The compound of claim 26, said compound being 6,8-dibromo-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazine or 6,8-dibromo-2-thiophen-2-yl-[1,2,4]triazolo[1,5-a]pyrazine.

5 30. A compound of the following formula:



or a pharmaceutically acceptable salt or N-oxide thereof;  
wherein

A is aryl or heteroaryl;

10 each of R<sup>2</sup> and R<sup>3</sup> is independently hydrogen, alkyl, cycloalkyl, cycloalkenyl, aryl, aralkyl, heterocycloalkyl, heterocycloalkenyl, heteroaryl, or heteroaralkyl; and  
X<sup>a</sup> is chloro, bromo, or iodo.

15 31. The compound of claim 30, wherein A is phenyl, pyrazine, furan, thiophene, indole, thiazole, or pyrrole.

32. The compound of claim 31, wherein each of R<sup>2</sup> and R<sup>3</sup> is hydrogen or alkyl.

20 33. The compound of claim 32, wherein X<sup>a</sup> is bromo.

25 34. The compound of claim 30, said compound being 6-bromo-2-furan-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine, 6-bromo-2-thiophen-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine, 2-furan-2-yl-6-iodo-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine, or 6-iodo-2-thiophen-2-yl-[1,2,4]triazolo[1,5-a]pyrazin-8-ylamine.

35. A pharmaceutical composition comprising a compound of claim 1 and a pharmaceutically acceptable carrier.

-92-

36. A pharmaceutical composition comprising a compound of claim 19 and a pharmaceutically acceptable carrier.
- 5       37. A method of modulating the A<sub>2a</sub> adenosine receptor signaling pathways in a subject, the method comprising administering to said subject with an effective amount of a compound of claim 1.
- 10      38. A method of modulating the A<sub>2a</sub> adenosine receptor signaling pathways in a subject, the method comprising administering to said subject with an effective amount of a compound of claim 19.
- 15      39. A method of inhibiting the A<sub>2a</sub> adenosine receptor in a cell, the method comprising the step of contacting said cell with an effective amount of a compound of claim 1.
- 20      40. A method of inhibiting the A<sub>2a</sub> adenosine receptor in a cell, the method comprising the step of contacting said cell with an effective amount of a compound of claim 19.
- 25      41. A method of treating or preventing a disorder or disease in a subject wherein the cause or syndrome of the disorder or disease is associated with an activation of the A<sub>2a</sub> adenosine receptor, the method comprising the step of administering to said subject an effective amount of a compound of claim 1.
- 30      42. A method of treating or preventing a disorder or disease in a subject wherein the cause or syndrome of the disorder or disease is associated with an activation of the A<sub>2a</sub> adenosine receptor, the method comprising the step of administering to said subject an effective amount of a compound of claim 19.
43. The method of claim 41 or 42, wherein the disorder or disease is selected from the group consisting of Parkinson's disease, progressive supranuclear palsy, multiple system atrophy, Alzheimer's disease, depression, AIDS encephalopathy, multiple sclerosis, amyotrophic lateral sclerosis, migraine,

-93-

attention deficit disorder, narcolepsy, sleep apnea that results in excessive daytime sleepiness, Huntington's disease, cerebral ischemia, brain trauma, hepatic fibrosis, cirrhosis, and fatty liver.

5        44. The method of claim 43, wherein the disorder or disease is Parkinson's disease.

45. The method of claim 43, wherein the disorder or disease is depression.

46. The method of claim 43, wherein the disorder or disease is migraine.

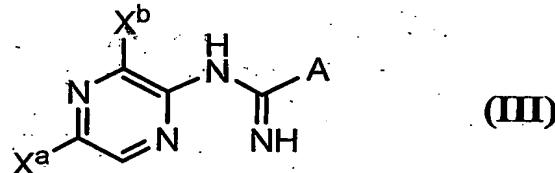
10

47. The method of claim 43, wherein the disorder or disease is hepatic fibrosis.

48. The method of claim 43, wherein the disorder or disease is Huntington's disease.

15

49. A method of preparing a compound of the following formula:

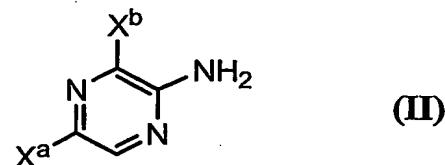


or a pharmaceutically acceptable salt or N-oxide thereof;  
wherein

20        A is aryl or heteroaryl; and

each of X<sup>a</sup> and X<sup>b</sup> is independently chloro, bromo, or iodo;

said method comprising reacting a pyrazine of formula (II)



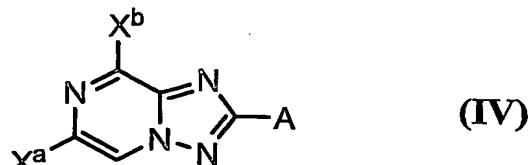
25        with A-CN, where X<sup>a</sup>, X<sup>b</sup>, and A have been defined above, in the presence of a Lewis acid to form a compound of formula (III).

50. The method of claim 49, wherein A is phenyl, pyrazine, furan, thiophene, indole, thiazole, or pyrrole; and each of X<sup>a</sup> and X<sup>b</sup> is bromo.

-94-

51. The method of claim 50, wherein the Lewis acid is AlCl<sub>3</sub> or ZnCl<sub>2</sub>.

52. A method of preparing a compound of the following formula:



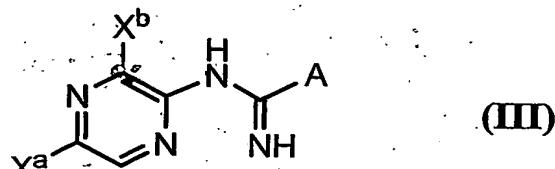
or a pharmaceutically acceptable salt or N-oxide thereof;

wherein

A is aryl or heteroaryl; and

each of X<sup>a</sup> and X<sup>b</sup> is independently chloro, bromo, or iodo;

10 said method comprising cyclizing a compound of formula (III)

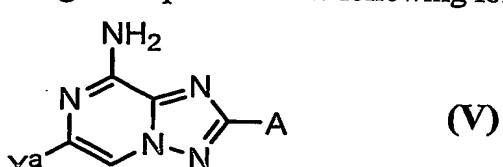


where X<sup>a</sup>, X<sup>b</sup>, and A have been defined above, in the presence of an oxidizing agent to form a compound of formula (IV).

15 53. The method of claim 52, wherein A is phenyl, pyrazine, furan, thiophene, indole, thiazole, or pyrrole; and each of X<sup>a</sup> and X<sup>b</sup> is bromo.

54. The method of claim 52, wherein the oxidizing agent is Pb(OAc)<sub>4</sub>, NaOCl, or 2-iodoxybenzoic acid.

20 55. A method of preparing a compound of the following formula:



or a pharmaceutically acceptable salt or N-oxide thereof;

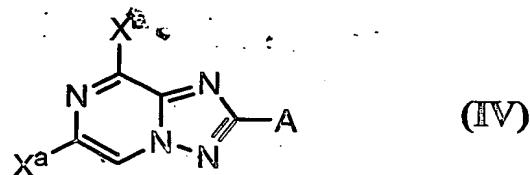
wherein

25 A is aryl or heteroaryl; and

X<sup>a</sup> is chloro, bromo, or iodo;

-95-

said method comprising aminating a compound of formula (IV)



in the presence of anhydrous ammonia, where  $X^a$  has been defined above and  $X^b$  is chloro, bromo, or iodo.

5

56. The method of claim 55, wherein A is phenyl, pyrazine, furan, thiophene, indole, thiazole, or pyrrole; and  $X^a$  is bromo.